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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)	
)	MM Docket No. 99-197
Amendment of Section 73.622	(b))	RM-9573
Table of Allotments,)	
Digital Television Broadcast S	tations.	RECEIVED
(Salt Lake City, Ogden and Pro	ovo, Utah))	
		JUL 1 2 1999
To: Chief, Video Service D	ivision	mark OAL CARRY
Mass Media Bureau		FEMERAL COMMUNICATIONS COMMISSION OFFICE 8F THE SECRETARY

COMMENTS OF DTV UTAH

Eight television stations in the Utah market (collectively "DTV Utah" or "Petitioners")¹ hereby submit these Comments in support of the Notice of Proposed Rule Making ("Notice")² issued by the Commission in the above-captioned proceeding in connection with the Petition for Rulemaking ("Petition") filed by DTV Utah on March 12, 1999.³ The Notice proposes to amend Section 73.622(b) of the FCC's Rules, the DTV Table of Allotments ("DTV Table"), to allot Channel *44 to Provo, Utah and assign it as the reserved noncommercial

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The licensees of these eight stations are Brigham Young University (licensee of NCE Station KBYU-TV); Larry H. Miller Communications Corp. (licensee of Station KJZZ-TV); Bonneville Holding Company (licensee of Station KSL-TV); United Television, Inc. (licensee of Station KTVX); University of Utah (licensee of NCE Stations KUED and KULC); KUTV Associates (licensee of Station KUTV); and ACME Television Licenses of Utah, LLC (proposed licensee of Station KUWB).

Notice of Proposed Rule Making, MM Docket No. 99-197, RM-9573 (adopted May 19, 1999; rel. May 21, 1999). An Erratum was released by the FCC on May 26, 1999, to correct a typographical error in the Notice. *See* Erratum, MM Docket No. 99-197, RM-9573 (rel. May 26, 1999). The Notice of Proposed Rule Making and the Erratum collectively are referred to herein as the "Notice."

DTV Utah filed a Correction to the Petition on March 26, 1999, to remedy slight inaccuracies in the joint tower site coordinates and antenna heights in the Petition and its Exhibits. Any references herein to the "Petition" incorporate the Correction. The Petition sets forth the public interest benefits and engineering bases for the amendments to the DTV Table proposed by the Notice, and hereby is incorporated herein by reference.

educational ("NCE") DTV channel for KBYU-TV; to allot Channel 46 to Salt Lake City, Utah and assign it as the DTV channel for KJZZ-TV; to allot Channel *36 to Ogden, Utah and assign it as the reserved NCE DTV channel for KULC; and to allot Channel 48 to Ogden, Utah and assign it as the DTV channel for KUWB. As found by the Commission in the Notice, the requested DTV channels (Channels *36, *44, 46, 48) can be substituted for the stations' existing channels (Channels 17, 27, *356 and *39), allotted to the communities specified above, and assigned to the existing licensees in compliance with Sections 73.623 (DTV Applications and Changes to DTV Allotments) and 73.625(a) (DTV Coverage of Principal Community and Antenna System: Transmitter Location) of the Commission's Rules.

The DTV Utah joint tower site would be located at Farnsworth Peak, with reference coordinates of 40-39-33 N, 112-12-07 W. The four channels subject to this rulemaking would operate at the following heights and powers: KBYU-TV (DTV *44, 1257 m HAAT, 403.0 kW ERP); KJZZ-TV (DTV 46, 1267 m HAAT, 200.0 kW ERP); KULC (DTV *36, 1257

See Notice at ¶ 4.

The FCC initially allotted/assigned DTV channel 29 to KUWB. Through a private swapping arrangement, KUWB agreed to swap its channel 29 DTV allotment/assignment for the channel 17 DTV allotment/assignment of KUPX (NTSC 16, Provo, UT).

The FCC initially allotted/assigned DTV channel *34 to KULC. Through a private swapping arrangement, KULC has agreed to swap its channel *34 DTV allotment/assignment for KUTV's channel 35 DTV allotment/assignment, resulting in the following channel pairings: KULC (NTSC *9, DTV *35) and KUTV (NTSC 2, DTV 34). The purpose of this swap is to permit KUTV to conduct its DTV operations on channel 34, as specified in the DTV Utah channel plan, and to permit KULC to relinquish the channel *35 allotment/assignment in exchange for channel *36, which would be added to the FCC's DTV Table.

See also the Engineering Statement attached as Exhibit A hereto.

m HAAT, 304.0 kW ERP); and KUWB (DTV 48, 1257 m HAAT, 200.0 kW ERP). The DTV Table would be amended as set forth in the Notice.⁸

In the *Fifth Report and Order* in the DTV allotments/assignments proceeding, ⁹ the Commission explained that cooperative arrangements between broadcasters would "aid both broadcaster and public, by helping the broadcaster achieve the most competitive and beneficial business strategy and by ensuring for the public the best use of the digital spectrum, including not only the most efficient use of the spectrum but also the greatest array of valuable services." ¹⁰ In the Notice, the Commission noted that the proposed channel changes "could enable the [DTV Utah] broadcasters to share facilities, costs and equipment in converting to the DTV technology." ¹¹ The amendments to the DTV Table proposed in the Notice would advance the goals of the DTV transition and serve the public interest, and should be adopted by the Commission.

The proposed amendments to the DTV Table will allow the DTV Utah stations to co-locate their digital operations on a single tower and accommodate all eight stations with only two antennas, permitting a sleek, stable, safe, efficient and economical tower design. The

See Erratum, MM Docket No. 99-197, RM-9573, correcting paragraph 5 of the Notice.

Advanced Television Systems and Their Impact upon the Existing Television Broadcasting Service, Fifth Report and Order, MM Docket No. 87-268, FCC 97-116, 12 FCC Rcd. 12809 (adopted Apr. 3, 1997).

Id. at 12834. See also Additional Application Processing Guidelines for Digital Television (DTV), Public Notice (August 10, 1998) at 11 ("[T]he Commission will seek to accommodate petitions to amend the DTV Table to modify allotments based on negotiated agreements that cannot be handled in the application process; that is, involving channels not allotted to any of the parties to the agreement. Once the table is amended through the allocation process to reflect an agreement, applications for the allotments would not be subject to the filing of competing applications.")

Notice at ¶ 3.

proposed adjustments to the DTV Table are essential to the joint tower plan, resolving potential interference problems and engineering obstacles that otherwise would preclude co-location of these eight stations. ¹² Use of the stations' existing channel assignments at the joint tower site would create interference problems among the DTV Utah stations and with other stations in the Utah market, and would create a host of other technical problems.

The amendments to the DTV Table proposed in the Notice will benefit the public by facilitating the joint tower project, which in turn will produce economies and efficiencies that will reduce the burden of the DTV transition on all of the stations involved in the project and will speed the initiation of digital services by these stations. Co-location on a single tower will result in the construction of fewer digital towers in Utah, and will facilitate DTV reception from rooftop antennas oriented towards the joint tower. This, in turn, will facilitate consumer interest in and access to DTV services. Early adopters who orient their DTV antennas towards the joint tower will enjoy not one, but multiple digital television stations.

The amendments to the DTV Table proposed in the Notice – indeed, the DTV Utah channel plan as a whole – will not result in harmful interference to the NTSC and DTV operations of other full power stations in the Utah market.¹³ Nor will it unduly disrupt LPTV and translator service in the area. Indeed, all of the translator licensees in the State of Utah

There are three inter-dependent components to the DTV Utah joint tower channel plan: (1) the amendments to the DTV Table proposed in the Notice, (2) an intra-market channel swap between KUTV and KULC pursuant to Sections 73.622(c) and 73.623(f) of the Commission's rules, and (3) the retention by KSL-TV, KTVX and KUED of the DTV channels allotted/assigned to them in the DTV Table, with any necessary facilities or site changes addressed in their DTV applications. Only the first of these three components is the subject of this rulemaking, although all three are critical to the success of the joint tower project. Because of this inter-dependence, all eight DTV Utah stations are signatories to the Petition and these Comments. For the same reason, the channel swap between KULC and KUTV is contingent on the outcome of this rulemaking.

See Exhibit A.

support a master translator plan, designed around the DTV Utah channel plan, which would preserve every translator in the State. Similarly, DTV Utah has taken steps to ensure that any LPTVs that might be adversely impacted by the DTV Utah channel plan are reasonably accommodated.

For the foregoing reasons, DTV Utah hereby respectfully urges the Commission to amend Section 73.622(b), the DTV Table of Allotments, as proposed in the Notice, to substitute Channel *44 for Channel *39 as the DTV channel assigned to KBYU-TV; to substitute Channel 46 for Channel 27 as the DTV channel assigned to KJZZ-TV; to substitute Channel *36 for Channel *35 as the DTV channel assigned to KULC; and to substitute Channel 48 for Channel 17 as the DTV channel to be assigned to KUWB. Following allotment and assignment of the new DTV channels requested in the Petition and proposed in the Notice, KBYU-TV, KJZZ-TV, KULC and KUWB will each submit (or, if applicable, amend) an application for a construction permit for its DTV station on the newly allotted/assigned channel. Following grant of the construction permit, each station will complete construction of its digital facilities and will begin digital operations in a timely manner.

Petitioners hereby respectfully request that the Commission act expeditiously to adopt the proposal set forth in the Notice. The proposed channel changes are critical to *all* of the

On February 17, 1999, a package of approximately 135 displacement applications were filed to effectuate this master translator plan. The master translator plan is supported by the State of Utah.

Because the Commission both allots and assigns digital channels based on rulemaking petitions (unlike in analog where it only allots the requested channels and others may apply for them), the Petitioners were assured that they would not put their DTV channels at risk by virtue of filing the Petition and filing these Comments in support of the Notice. The DTV allotments/assignments provided for the Petitioners in the Sixth Report and Order will not be deleted until the new DTV channels are, with finality, allotted and assigned to them. See Advanced Television Systems and Their Impact upon the Existing Television Broadcasting Service, Sixth Report and Order, MM Docket No. 87-268, FCC 97-115, 12 FCC Rcd. 14588 (adopted Apr. 3, 1997).

DTV Utah stations as they prepare for the DTV transition, not just for those whose allotments/assignments are directly addressed in the Notice. As noted in the Petition, the DTV Utah stations are confronted with harsh weather conditions that leave only a narrow window for tower construction each year. Quick and favorable resolution of this rulemaking will permit the DTV Utah joint tower project to proceed aggressively, will serve the public interest, and will set an example for other markets as they transition to digital television services.

Respectfully submitted,

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July 12, 1999

ENGINEERING STATEMENT SUPPORTING COMMENTS OF DTV UTAH MM Docket No. 99-197, RM-9573

This Engineering Statement supports the foregoing Comments filed by eight television stations in the Salt Lake City, Utah market (collectively, "DTV Utah")¹ in support of the Notice of Proposed Rule Making (the "Notice") released by the FCC on May 21, 1999 in MM Docket No. 99-197, RM-9573. (An Erratum was released by the FCC on May 26, 1999, to correct a typographical error in the Notice.) As requested in the Petition for Rulemaking filed by DTV Utah on March 12, 1999 (the "Petition"),² the Notice proposes to change the digital television ("DTV") allotment/assignment of KBYU-TV from channel 39 to channel 44, change the DTV allotment/assignment of KULC from channel 27 to channel 46, change the DTV allotment/assignment of KUUR from channel 17 to channel 48. The proposed channel changes are requested in order to permit these stations to co-locate at a single tower site. A detailed breakdown of the proposed changes is provided below.

OVERVIEW OF DTV UTAH JOINT TOWER PROPOSAL

The eight DTV Utah stations propose to co-locate on a new tower adjacent to the current KSL-TV site at Farnsworth Peak. In order to facilitate this joint tower, DTV Utah proposed a new channel plan. Although this channel plan can be achieved in part through use of the DTV channels allotted/assigned to the DTV Utah group, four of the stations need new DTV channels that are not currently in the FCC's DTV Table. Without these four new allotments/assignments, the joint tower plan cannot be implemented. In exchange for these four new DTV allotments/assignments, the DTV Utah stations would return four currently allotted/assigned DTV channels to the pool of unassigned channels. In the Notice, the FCC proposed to amend the DTV Table as requested by DTV Utah in the Petition.

The proposed channel plan is provided below. The new channel plan consists of three interdependent components. The first component consists of the three stations, KSL-TV, KTVX

These eight stations are NCE Station KBYU-TV (Provo, UT), Station KJZZ-TV (Salt Lake City, UT), Station KSL-TV (Salt Lake City, UT), Station KTVX (Salt Lake City, UT), NCE Station KUED (Salt Lake City, UT), NCE Station KULC (Ogden, UT), Station KUTV (Salt Lake City, UT), and Station KUWB (Ogden, UT).

DTV Utah filed a Correction to the Petition on March 26, 1999, to remedy slight inaccuracies in the joint tower site coordinates and antenna heights in the Petition and its Exhibits. Any references herein to the "Petition" incorporate the Correction.

and KUED, that do not require channel changes. The second component is a channel swap between two stations in the DTV Utah group, KUTV (initially assigned DTV channel 35) and KULC (initially assigned DTV channel 34). The purpose of this channel swap is to permit KUTV to operate on channel 34 and to permit KULC to exchange its swapped channel (channel 35) for channel 36, which would be added to the DTV Table in this rulemaking.

The Notice proposes to implement the third component, which involves the four stations that require new DTV channels that are not currently allotted/assigned to the DTV Utah group, and must be added to the DTV Table. In exchange for these four new allotments/assignments, these four stations – KBYU-TV, KJZZ-TV, KULC, and KUWB – would relinquish their current DTV allotments/assignments, which either were assigned to them in the FCC's DTV Table or were obtained through intra-market channel swapping arrangements.

		Proposed DTV Utah Channel Pairings	
Call Sign	City/State	NTSC	DTV
KUTV	Salt Lake City, UT	2	34
KTVX	Salt Lake City, UT	4	40
KSL-TV	Salt Lake City, UT	5	38
KUED	Salt Lake City, UT	7	42
KULC	Ogden, UT	9	36
KBYU-TV	Provo, UT	11	44
KJZZ-TV	Salt Lake City, UT	14	46
KUWB	Ogden, UT	30	48

The proposed reference site for the joint tower is at Farnsworth Peak. All eight stations would be accommodated on two stacked antennas. The parameters for the proposed joint tower are as follows:

Location:

40-39-33 N

112-12-07 W

Height:

Channels 36, 40, 44, 48 – 2832 m RCAMSL, 1257 m HAAT

Channels 34, 38, 42, 46 – 2842 m RCAMSL, 1267 m HAAT

INTERFERENCE STUDIES OF JOINT TOWER PLAN

All *de minimis* interference analyses were performed in the manner prescribed by the FCC Rules and Regulations and the Public Notice that addressed procedures for application filing and processing. In conducting the *de minimis* interference analyses, it was assumed that each of the stations would operate with a non-directional antenna pattern.³ Analyses also were performed to

³ The allotments/assignments requested herein and the *de minimis* interference analyses are based on non-directional antenna patterns. DTV Utah has requested that the proposed new channels be allotted/assigned on this basis (*i.e.*,

determine the predicted coverage of each of the stations and to confirm that each station would provide the required level of coverage over the city of license.

In addition to performing the *de minimis* interference analyses for the existing analog stations and paired DTV allotments, the two DTV vacant allotments at Monticello, Utah (channel 41) and Cedar City, Utah (channel 44) were also considered. Since the distance from the proposed DTV Utah site to the reference coordinates for the Monticello allotment is 396 km, it is beyond the area of consideration for adjacent channel protection.

The Cedar City allotment is located 339 km from the DTV Utah site and therefore is within the co-channel consideration area. Since there is no paired NTSC station for the Cedar City allotment and consequently no DTV facility parameters, an assumed facility was used for the purpose of the *de minimis* interference analysis. The assumed facility was placed at the allotment reference coordinates and was given a HAAT of 610 m and an ERP of 316 kW. Based on the assumed facility, no loss in service population is caused to the proposed KBYU channel 44. Likewise, the proposed KBYU-TV channel 44 causes no population loss to the Cedar City allotment.

STATION-BY-STATION ANALYSIS OF PROPOSED NEW DTV CHANNELS

A station-by-station analysis of the four proposed amendments to the DTV Table is provided below. As shown below, the requested DTV channels (channels 36, 44, 46, 48) can be substituted for the stations' existing channels (channels 17, 27, 35 and 39), allotted to their communities of license, and assigned to the existing licensees in compliance with Section 73.623 of the Commission's Rules.

The following interference analyses have been conducted using the procedures outlined in the FCC's OET Bulletin No. 69. Interference has been evaluated in terms of population, consistent with FCC procedures. The analyses demonstrate that the proposed DTV allotments/assignments for KBYU-TV, KJZZ-TV, KULC and KUWB will not cause more than *de minimis* interference to the analog or digital service of any other full service television station.

KBYU-TV (NTSC 11, Provo, Utah)

The Notice proposes to change KBYU-TV's DTV allotment/assignment from DTV channel 39 to DTV channel 44 as follows:

	Present	Proposed
DTV Channel	Channel 39	Channel 44
Power	402.8 kW	403.0 kW
HAAT	896 meters	1257 meters
Location	40-36-28 N, 112-09-33 W	40-39-33 N, 112-12-07 W

The predicted coverage contour for KBYU-TV's proposed channel 44 DTV service is depicted in Figure 1. KBYU-TV's DTV operation on channel 44 at the proposed site would provide the FCC-required coverage of Provo, KBYU-TV's city of license. There is no major obstruction between the proposed joint tower site and Provo, in compliance with Section 73.625(a)(2) of the FCC rules. Interference calculations for the proposed KBYU-TV DTV operation on channel 44 are summarized below.

Station Analyzed	City, State	Channel	Percent New
KUWB(TV)	Ogden, UT	NTSC 30	Interference 0.0

As shown above, KBYU-TV's proposed channel 44 DTV operation would not cause more than 2% interference to the analog or digital operations of any other full power television station. In addition, the proposal would not result in more than 10% interference to any station. Therefore, the proposal complies with the FCC's 2%/10% *de minimis* interference standard.

KJZZ-TV (NTSC 14, Salt Lake City, Utah)

The Notice proposes to change KJZZ-TV's DTV allotment/assignment from DTV channel 27 to DTV channel 46 as follows:

	Present	Proposed
DTV Channel	Channel 27	Channel 46
Power	84.2 kW	200.0 kW
HAAT	1181 meters	1267 meters
Location	40-39-12 N, 112-12-06 W	40-39-33 N, 112-12-07 W

The predicted coverage contour for KJZZ-TV's proposed channel 46 DTV service is depicted in Figure 2. KJZZ-TV's DTV operation on channel 46 at the proposed site would provide the FCC-required coverage of Salt Lake City, KJZZ-TV's city of license. There is no major obstruction between the proposed joint tower site and Salt Lake City, in compliance with Section

73.625(a)(2) of the FCC rules. Interference calculations for the proposed KJZZ-TV DTV operation on channel 46 are summarized below.

Station Analyzed	City, State	Channel	Percent New Interference
NEW	Provo, UT	NTSC 32	0.0

As shown above, KJZZ-TV's proposed channel 46 DTV operation would not cause more than 2% interference to the analog or digital operations of any other full power television station. In addition, the proposal would not result in more than 10% interference to any station. Therefore, the proposal complies with the FCC's 2%/10% *de minimis* interference standard.

KULC (NTSC 9, Ogden, Utah)

The Notice proposes to change KULC's DTV allotment/assignment from DTV channel 35⁴ to DTV channel 36 as follows:

	Present (post-swap)	Proposed
DTV Channel	Channel 35	Channel 36
Power	737.0 kW	304.0 kW
HAAT	933.0 meters	1257 meters
Location	40-36-23 N, 112-09-47 W	40-39-33 N, 112-12-07 W

The predicted coverage contour for KULC's proposed channel 36 DTV service is depicted in Figure 3. KULC's DTV operation on channel 36 at the proposed site would provide the FCC-required coverage of Ogden, KULC's city of license. There is no major obstruction between the proposed joint tower site and Ogden, in compliance with Section 73.625(a)(2) of the FCC rules. Interference calculations for the proposed KULC DTV operation on channel 36 are summarized below.

Station Analyzed	City, State	Channel	Percent New
			Interference
NEW	Provo, UT	NTSC 32	0.0
KIDK-DT	Idaho Falls, ID	DTV 36	0.3

As shown above, KULC's proposed channel 36 DTV operation would not cause more than 2% interference to the analog or digital operations of any other full power television station. In

⁴ The FCC initially allotted/assigned DTV channel 34 to KULC. Through a private swapping arrangement, KULC has agreed to swap its channel 34 DTV allotment/assignment for KUTV's channel 35 DTV allotment/assignment. The purpose of this swap is to permit KUTV to conduct its DTV operations on channel 34, as specified in the DTV Utah channel plan, and to permit KULC to relinquish the channel 35 allotment/assignment in exchange for channel 36, which would be added to the FCC's DTV Table.

addition, the proposal would not result in more than 10% interference to any station. Therefore, the proposal complies with the FCC's 2%/10% *de minimis* interference standard.

KUWB (NTSC 30, Ogden, Utah)

The Notice proposes to change KUWB's DTV allotment/assignment from DTV channel 17⁵ to DTV channel 48 as follows:

	Present (post-swap)	Proposed
DTV Channel	Channel 17	Channel 48
Power	253.0 kW	200.0 kW
HAAT	57 meters	1257 meters
Location	39-51-54 N, 111-53-39 W	40-39-33 N, 112-12-07 W

The predicted coverage contour for KUWB's proposed channel 48 DTV service is depicted in Figure 4. KUWB's DTV operation on channel 48 at the proposed site would provide the FCC-required coverage of Ogden, KUWB's city of license. There is no major obstruction between the proposed joint tower site and Ogden, , in compliance with Section 73.625(a)(2) of the FCC rules. No *de minimis* interference calculations were conducted for the proposed KUWB DTV operation on channel 48 because no potentially affected stations were found in the required analysis area. Thus, KUWB's proposed channel 48 DTV operation complies with the FCC's interference criteria for new DTV allotments/assignments.

⁵ The FCC initially allotted/assigned DTV channel 29 to KUWB. Through a private swapping arrangement, KUWB agreed to swap its channel 29 DTV allotment/assignment for the channel 17 DTV allotment/assignment of KUPX (NTSC 16, Provo, UT).

CONCLUSION

The technical analyses described herein demonstrate that the amended allotments/assignments requested in the Petition and proposed in the Notice comply with the FCC's interference and coverage criteria. Any questions concerning this engineering analysis may be directed to the undersigned.

The foregoing Engineering Statement and attached Figures are true and correct to the best of my knowledge and belief.

Louis Libin

President

Broad Comm Inc.

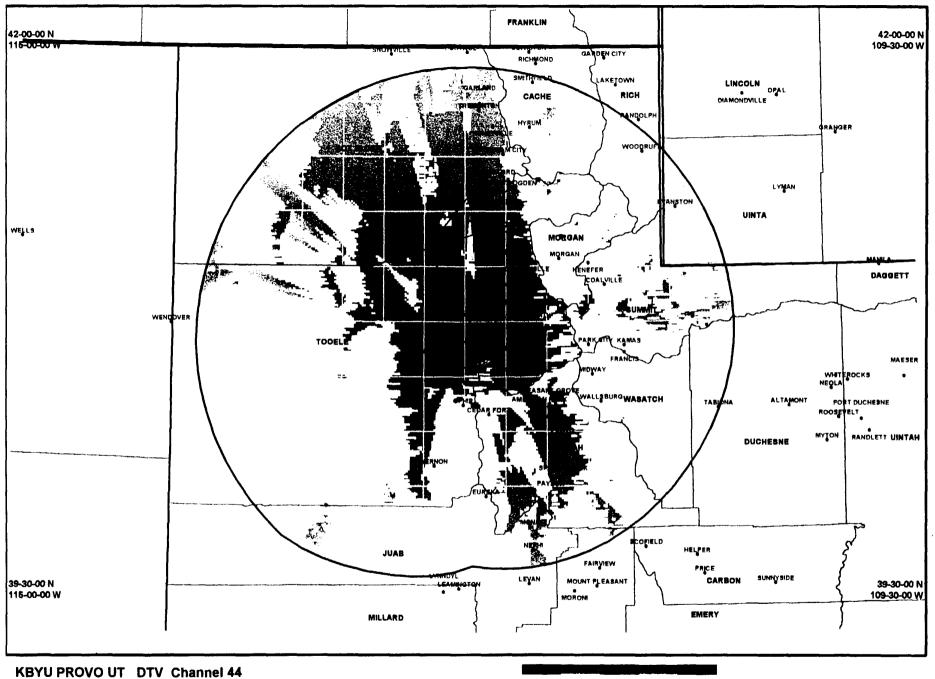
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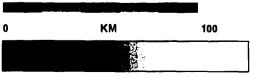
July 12, 1999



KBYU PROVO UT DTV Channel 44 Interference: NTSC = RED DTV = BLUE New site 40-39-33 112-12-07 Non-DA

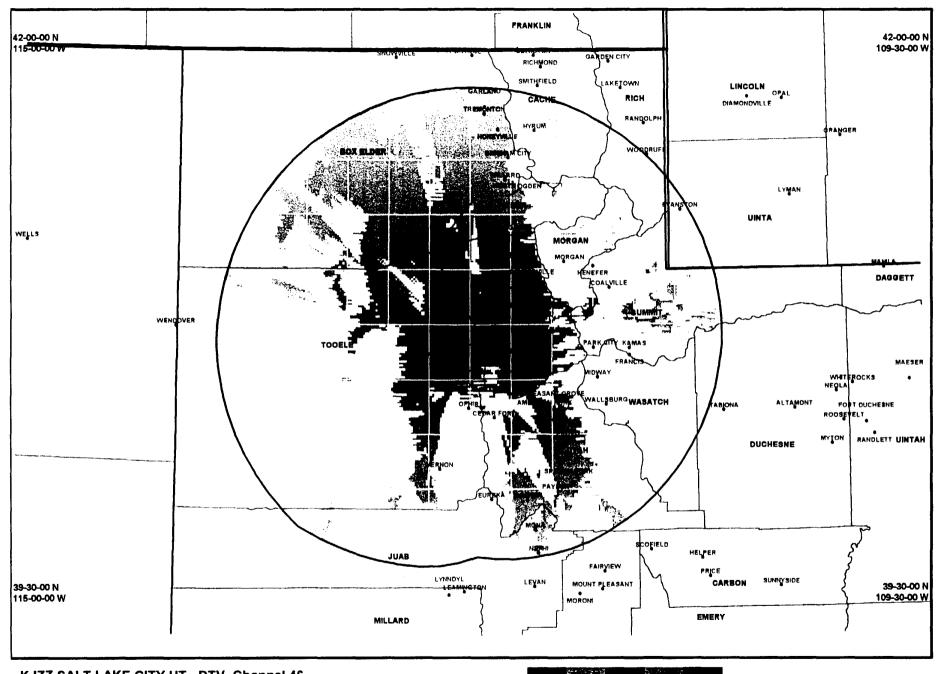
ERP: 403 kW HAAT 1257 m

DTV-UTAH FIGURE 1



138.43 dBu 89.96 dBu Predicted Longley-Rice Field

41.49 dBu (Noise Limited Service)



KJZZ SALT LAKE CITY UT DTV Channel 46 Interference: NTSC = RED DTV = BLUE New site 40-39-33 112-12-07 Non-DA

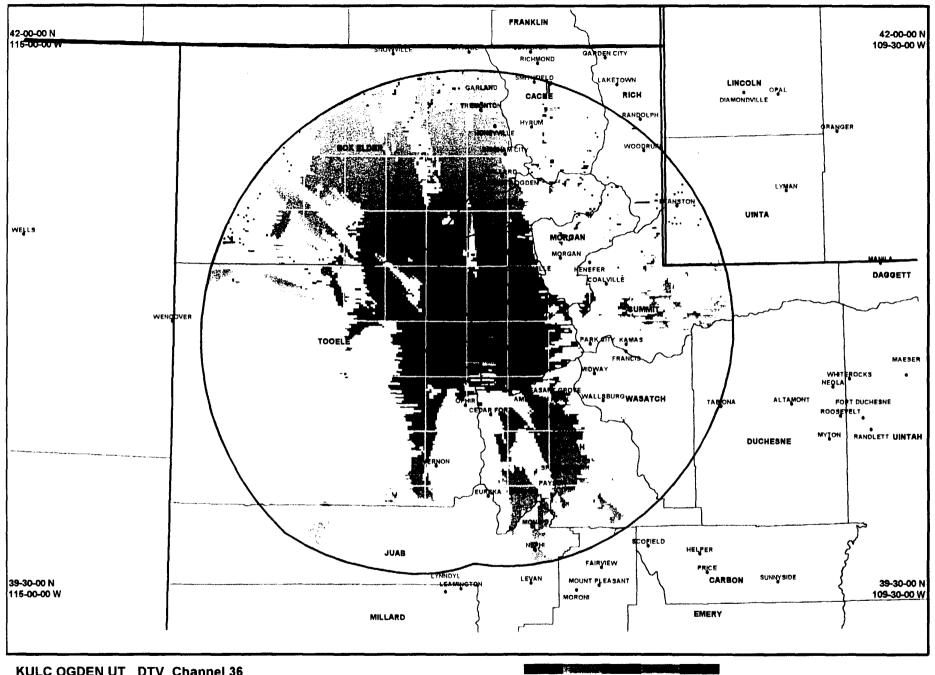
ERP: 200 kW HAAT 1267 m

DTV-UTAH FIGURE 2



136.84 dBu

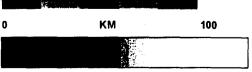
89.245 dBu Predicted Longley-Rice Field 41.65 dBu (Noise Limited Service)



KULC OGDEN UT DTV Channel 36 Interference: NTSC = RED DTV = BLUE New site 40-39-33 112-12-07 Non-DA

ERP: 304 kW HAAT 1257 m

DTV-UTAH FIGURE 3



137.86 dBu 89.345 dBu Predicted Longley-Rice Field

40.83 dBu (Noise Limited Service)

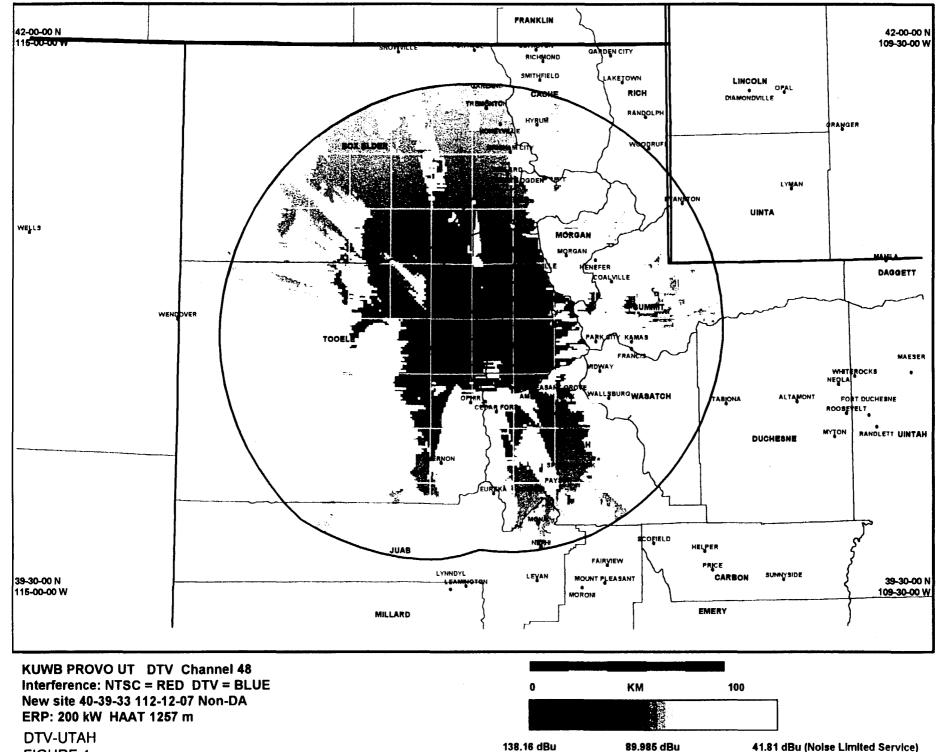


FIGURE 4

Predicted Longley-Rice Field

41.81 dBu (Noise Limited Service)